

Singapore's Innovation Agenda

By Patrick Lambe

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Innovation is in the air for this new year of the Horse, recently given a pragmatic, entrepreneurial twist by Senior Minister Lee Kuan Yew. The Productivity and Standards Board has been given the charter to promote innovation in Singapore, and on April 1st will change its name to SPRING Singapore (Standards, Productivity and Innovation for Growth). The much anticipated National Innovation Council, announced by Prime Minister Goh Chok Tong in November last year, is expected to be formed in the next few months.

Creativity programmes have been on our plates for some years now. Now the focus has shifted to turning creativity into innovation. The PSB Academy has partnered with the Center for Creative Leadership in the USA to bring a workshop for senior managers, named Unleashing Your Creativity. This workshop takes place in the magnificent surroundings of Jurong Bird Park, and participants are groomed to become innovation coaches back in their workplace.

The conference menu is also rich and varied. IQPC brings us the Public Sector Innovation Summit 27-28 March; the Civil Service College is organising Singapore's first Entrepreneurial Leadership Conference in collaboration with Babson College's Center for Entrepreneurship, for May 9th and 10th; Ark Group launch their Innovation Conference here the following week, May 15th-17th.

It's clear that the public sector has already developed a strong lead on developing indigenous innovation practices. The PS21 initiative has enthusiastically embraced innovation as a core theme. In early 2001, the PS21 Office hosted a Cabinet Ministerial Conference, where US strategy guru Gary Hamel gave a one-day workshop on strategic innovation for the Prime Minister and Cabinet Ministers. That was followed in May 2001 by a National Innovation Conference with internationally acclaimed innovation experts, aimed at kick-starting innovation practices within the public service.

That kick-start clearly worked. In a report entitled "Innovation in Singapore Organisations" released today by Straits Knowledge, the innovation leadership of the public sector is acknowledged by managers at all levels, in both public and private sectors.

Unusually for a civil service, where we might assume bureaucracy and conservatism to hold sway, Singapore's public servants are especially upbeat and perceptive about innovation. Civil servants here are more likely to feel that they have to keep up with innovation in their host organisation. They are also more likely to feel that their organisations are not innovative enough – yet.

Managers in GLCs, by contrast, are more likely to feel that they are being held back by the structures and cultures of their employing organisations, and they are more

likely to be pessimistic about the future of innovation in their organisations. While managers in multinationals rate their organisations with the highest innovation potential, they have only moderate innovation ambitions. SMEs spend the most time pursuing innovation, and are among the most optimistic about their ability to improve.

The position of GLCs is an interesting one, given their relatively close ties with the public sector. Something is happening in the public sector to drive innovation progress, which is not happening to the same extent in their GLC cousins. Leadership of innovation seems to be a core concern in GLCs, whereas it is perceived to be a major strength for the civil service.

What is the civil service doing right in the selection, deployment, development and migration of its leadership, which can be borrowed for other sectors? The public sector's sterling record in this is clearly undiminished from the early days of the Lee Kuan Yew government. In fact, as Mr Lee acknowledged last week, the GLCs originally started as entrepreneurial endeavours from within government, and depended upon finding, fostering and placing strong leaders. Has the increasing distance from the public service weakened that key strength? Or is the complex dual agenda of the GLC – its responsibility to the nation as well as to its stakeholders and the marketplace – complicating its flexibility?

Whatever the cause, GLCs are the largest single group of employers in Singapore, after the SME sector. The public service can only catalyse and provide leadership examples. True indigenous innovation capabilities can only become pervasive in Singapore if they are successfully cultivated in GLCs or SMEs – and they will take different forms in each.

I have used the phrase “indigenous innovation” a couple of times now. It's worth looking at this more closely, especially since much of what we know about innovation is imported from the vastly different environment and working cultures of the United States.

When Gary Hamel was here in early 2001 he had just published his new book, *Leading the Revolution*. In it, he cites cases of “grey haired revolutionaries” who take traditional business models and transform them into something radically new. This idea of fostering radical change, the promotion of inspired individualism, the notion of a race for market dominance at all costs, sit at the core of American conceptions of innovation. One of Hamel's favourite examples in that book is the now infamous case study of Enron. It turns out that radical innovations which move too far ahead of regulatory control also provide opportunities for fraud and malfeasance on an enormously damaging scale. Radical innovations can carry heavy, unanticipated costs.

Singapore managers, on the other hand, do not generally believe that innovation should be radical or revolutionary. Two thirds of them believe innovation should be deployed for continuous improvement rather than radical change. So how far will the tools for creativity and innovation we are importing be effective here? In what ways will they need to be adapted, if they are not to provoke the natural defence systems within our organisational cultures? We all know what these defences look like. They appear in the form of resistance to change, refusal to tolerate risk, reduction of everything – including creativity itself – to labels, rules and numbers.

The question of organisational culture is a critical one. Culture is cited as one of the most common barriers to fostering innovation here. The culture is complacent, we are told. It is risk averse, and punishes failure. Well, that may be true, but in true Freudian fashion, we should perhaps look for the reasons why cultures behave like that. It's rarely because of somebody's opinion, more often because the environment reinforces such behaviours and attitudes. In the second part of this article, I will examine the precise dynamics of the business environment here, and how organisational cultures instinctively respond to the innovation challenge.

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Innovation Ecologies

By Patrick Lambe

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I spent the last few months of 2001 in Western Australia, perched between karri forest and the sea. It was spring there, and a visitor for any length of time will remark on the incredible diversity of plant and bird life. Not merely its diversity, but how rapidly it changes. Spring flowers bloom and die in a matter of days, but in synchronised, successive waves, causing huge blushes of colour to move across the landscape like clouds moving in slow motion. The heath lands of Western Australia are basically barren sand flats, almost devoid of nutrients. And yet there are some 12,000 different plant species there, a level of bio-diversity to rival a rainforest.

Australia possesses the least fertile soils of any environment of its type on earth, containing roughly half the amounts of nitrate and phosphate found in semi-arid regions elsewhere. Lack of glacial action or volcanic activity has meant its soils have not been replenished with nutrients for millions of years. Plants have to work hard to get nutrition, and they protect themselves chemically from losing it too readily to herbivores. All the way up the food chain, the environment is selecting for resource-efficiency, and selecting against size, speed and brain power. That's why large-brained mammals were scarce in Australia before human beings arrived. That's why there is such diversity in briefly flowering plants, in insects, lizards and bird life.

That's also why competition for resources is such a rare phenomenon in Australian eco-systems. It's much more common to find species co-operating with each other to process, recycle and retain scarce nutrients. The Great Barrier Reef is a complex harvesting machine made up of interdependent species, all playing their distinctive, incredibly specialised roles. It is common to find bird species where only one sibling mates and produces young. The other siblings forego the right to reproduce, so that they can forage for food to feed their nephews and nieces. 85% of the bird species that behave like this are found in Australia. Eucalyptus trees develop large holes in their

bases – at first sight, this looks like a poor evolutionary move. It weakens the base of the tree, and leaves it vulnerable to bush fires, which invariably enlarge the hole. But the holes also provide shelter for possums, who leave their nutrient-rich droppings by way of rent.

The lesson, zoologists tell us, is this: where resources are plentiful and rich, the environment produces incentives to compete. Eventually, “super species” will emerge to command strategic portions of the food chain. However, where resources are scarce, evolution actually selects against competitive species. Here, evolution favours the species that collaborate to contribute towards resource efficiency – keeping nutrients in circulation. It particularly favours specialisation, the art of finding a unique niche in the food-recycling business.

Let’s apply this to Singapore’s innovation agenda. If we examine an instinctive American approach to innovation and a Singaporean one, we find clear contrasts. The American approach promotes competition, generous risk taking, going for large margins of advantage. The Singaporean approach promotes collaboration, risk averseness and incremental margins of advantage.

Looking at the environment will tell us why. The United States has both rich natural resources and a huge domestic market. Singapore has neither. The marginal cost of innovation is relatively low in the United States. Here it is high. Failure is extremely affordable in the United States, here it has disproportionate impact on prosperity. The fall of Enron was devastating for many individuals in the US and elsewhere, but the US economy barely faltered. Such a collapse in Singapore would have been disastrous. Margins for failure here are extremely narrow, because although managers may be trained to forgive failure, the markets will not.

The environment here therefore cannot reward risky behaviour with scarce resources, no matter how much we might say it should. Risks that appear reasonable in a US market, will appear extravagant here. The same equations do not hold sway. So it looks like successful innovation in Singapore will behave quite differently from successful innovation in America. In fact, the emphasis here on collaboration and resource efficiency may actually give it a competitive advantage on world markets, should it ever succeed in breaking into them in a big way. The costs of innovation are lower, because the risks are more smartly managed. Innovation becomes more efficient when it springs from barren soil. We can already see this happening in Israel, for example, a country that experiences some similar resource-scarcity challenges. We should have more case studies from such environments.

Now when we move from innovation – which is the social process of moving a new idea into a successful commercial reality – to entrepreneurship, the story changes a bit. Entrepreneurship is not the same as innovation, but it’s important for transforming a product or service into a commercial success. It’s also important for breaking out of the domestic market, and gaining access to richer reservoirs of talent, capital and opportunity – the nutrients of the business eco-system. Here, the game has to be played on international rules, and an appeal to local cultures will not hold sway.

What this suggests is a strong need to localise innovation so that it can flourish in the Singapore environment, while balancing it with an internationalised outlook on

entrepreneurial behaviours. It is not enough to say that Singaporeans must become more tolerant of failure. We must be able to discriminate what failures are tolerable, and what failures are not. It is not enough to say that we must become less risk averse. We need to know what risks are worth taking within the constraints of our environment, and what risks will result in punishment – not by managers, but by the environment itself. This is a large agenda. It involves Singapore managers learning more about how their organisational cultures are adapted to the business environment, and learning how to better manage those cultures for optimal effect. It involves Singapore managers gaining a better understanding of how creativity becomes a managed innovation process. And it involves taking that extra step into the world markets, and becoming a global entrepreneur, learning how to compete in other environments without forgetting the strengths of collaboration at home.

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